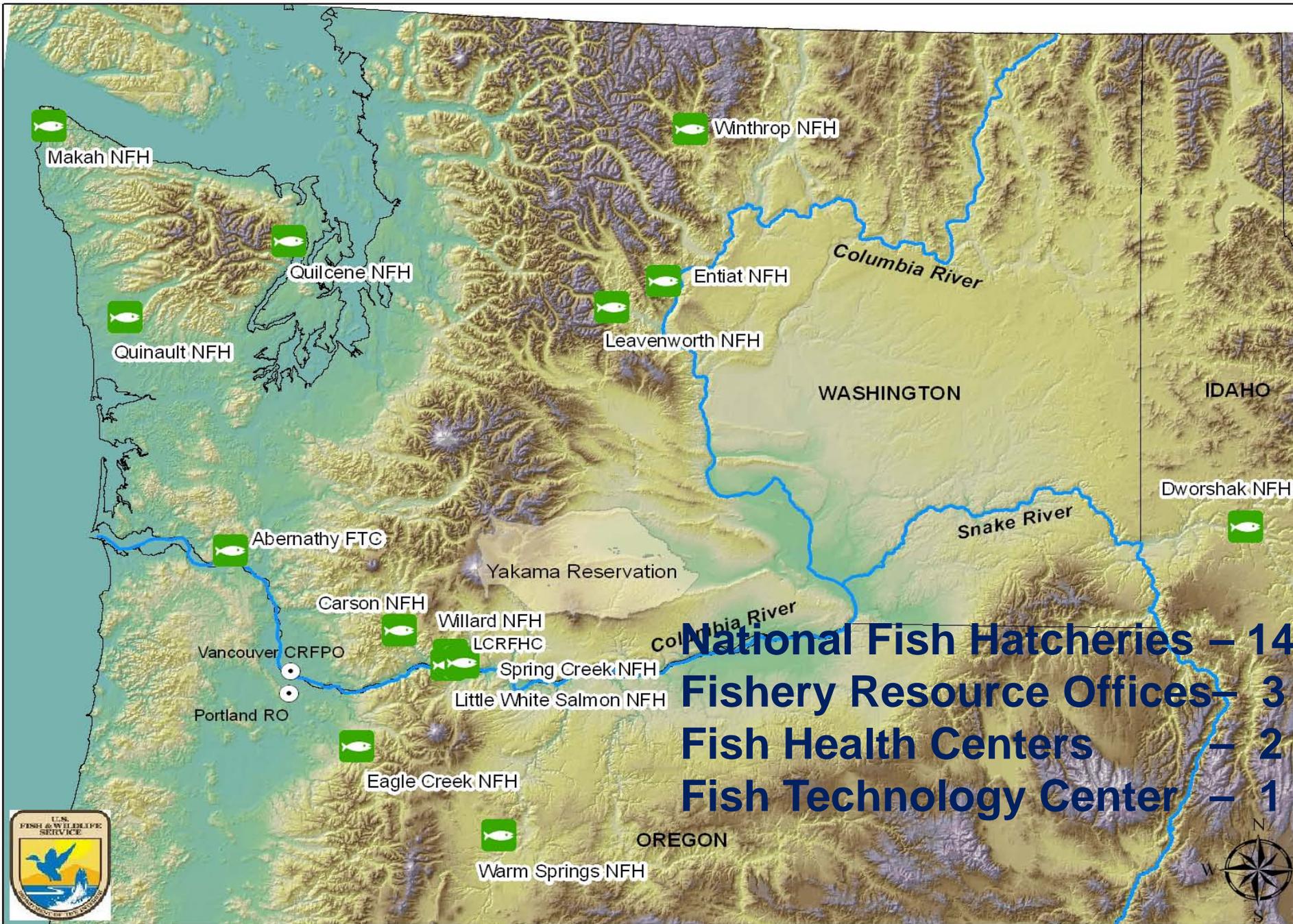




# USFWS Hatchery System in the Columbia Gorge Region and Current Hatchery Reform Efforts



**Mark Ahrens**  
*Spring Creek NFH - Assistant Manager*



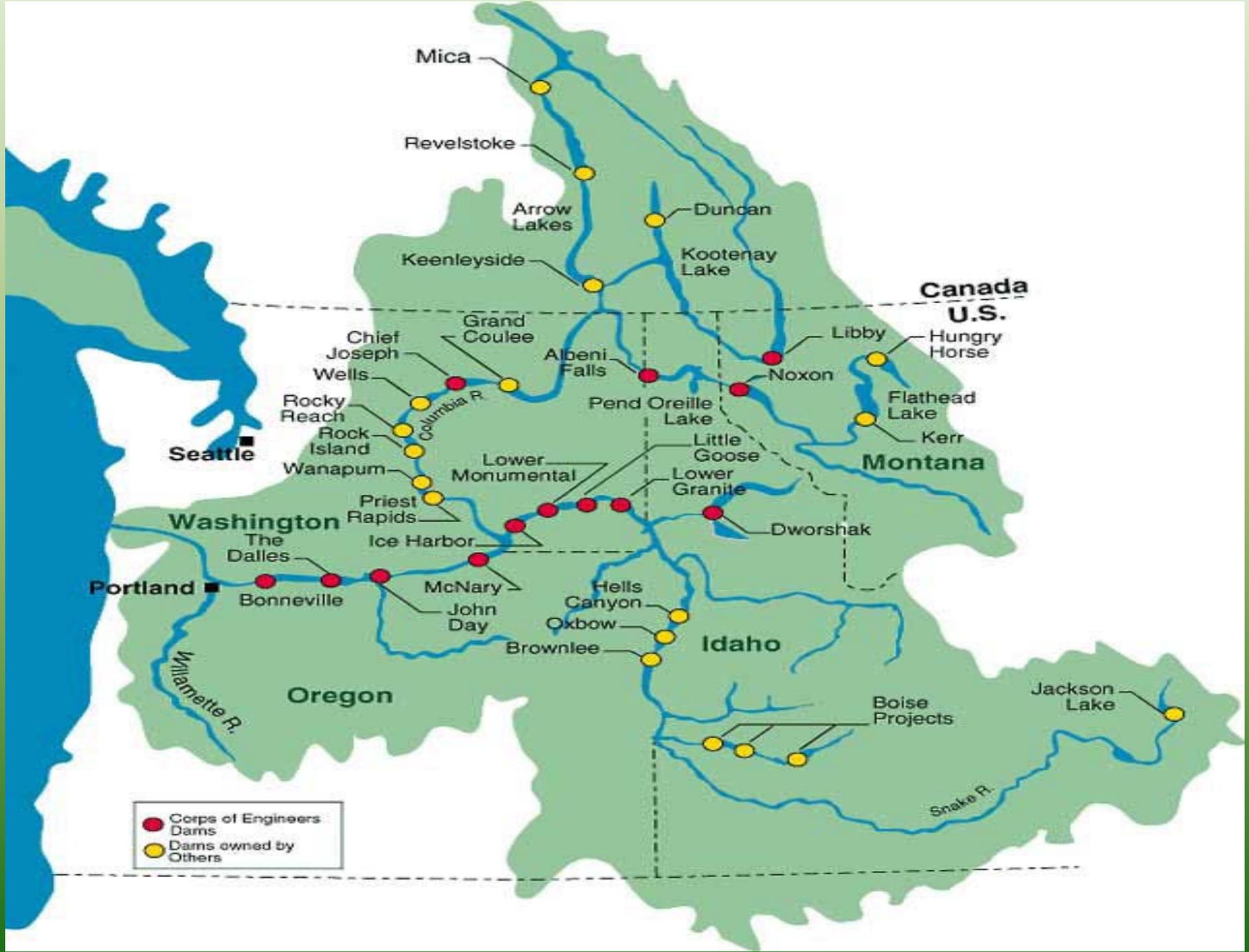
# Why Hatcheries Exist?

- **Trust Responsibility to Tribes**
  - FWS & Tribes unique relationship
- **Mitigation** (Commercial, Tribal, Sport Fisheries)
  - Federal Hydro Projects ACOE, BOR, Mitchell Act
- **Restoration – ESA recovery**

# Hatcheries Mission



**Yakama Nation tribal fishers during the  
spring Drano Lake tribal fishery**



● Corps of Engineers Dams  
● Dams owned by Others

# USFWS Fisheries Strategic Plan Goals

## USFWS 2009-2013 Pacific Region Fisheries Program Strategic Plan Focus Area for Aquatic Habitat Conservation and Management:

***National Goal: America's streams, lakes, estuaries, and wetlands are functional ecosystems that support self-sustaining communities of fish and other aquatic resources.***

***Regional Objective 2.1. Facilitate management of aquatic habitats on national and regional scales by working with Tribes, States, partners, and other stakeholders.***



# Cooperation with Native American Tribes

*National Goal: Assistance is provided to Tribes that results in the management, protection, and conservation of their treaty-reserved or statutorily defined trust natural resources which helps Tribes develop their own capabilities.*

*National Objectives:*

*4.1 Provide technical assistance to Tribes*

*4.2 Identify sources of funds to enhance tribal resource management*

*4.3 Provide fish for tribal resources management*

*4.4 Recognize and promote the Service's distinct obligation toward Tribes within the Fisheries Program*

**Regional Goal: Assist Tribes in the management, protection, and conservation of their treaty-reserved or statutorily defined trust natural resources.**

***Regional Objective 8.1. Provide technical assistance to Tribes as requested and to the extent possible, in tribal natural resource management activities.***

***Regional Objective 8.2. Provide fish from the Service's NFHs, where appropriate, to support tribal fish culture programs, subsistence programs, ceremonies, and resource management activities.***

# USFWS Fisheries Program

## Mitigation Fisheries

**Regional Goal:** The Fisheries Program will work with other federal agencies, states, and Tribes to meet mitigation responsibilities, identify mitigation goals and pursue full cost reimbursable funding for the Service's operation and management of mitigation facilities.

*Regional Objective 7.1. The Fisheries Program will work with federal agencies, Tribes, state agencies, and others to identify the appropriate hatchery mitigation goals for water development projects and funding responsibilities of the respective federal agencies.*

# Hatcheries Benefits

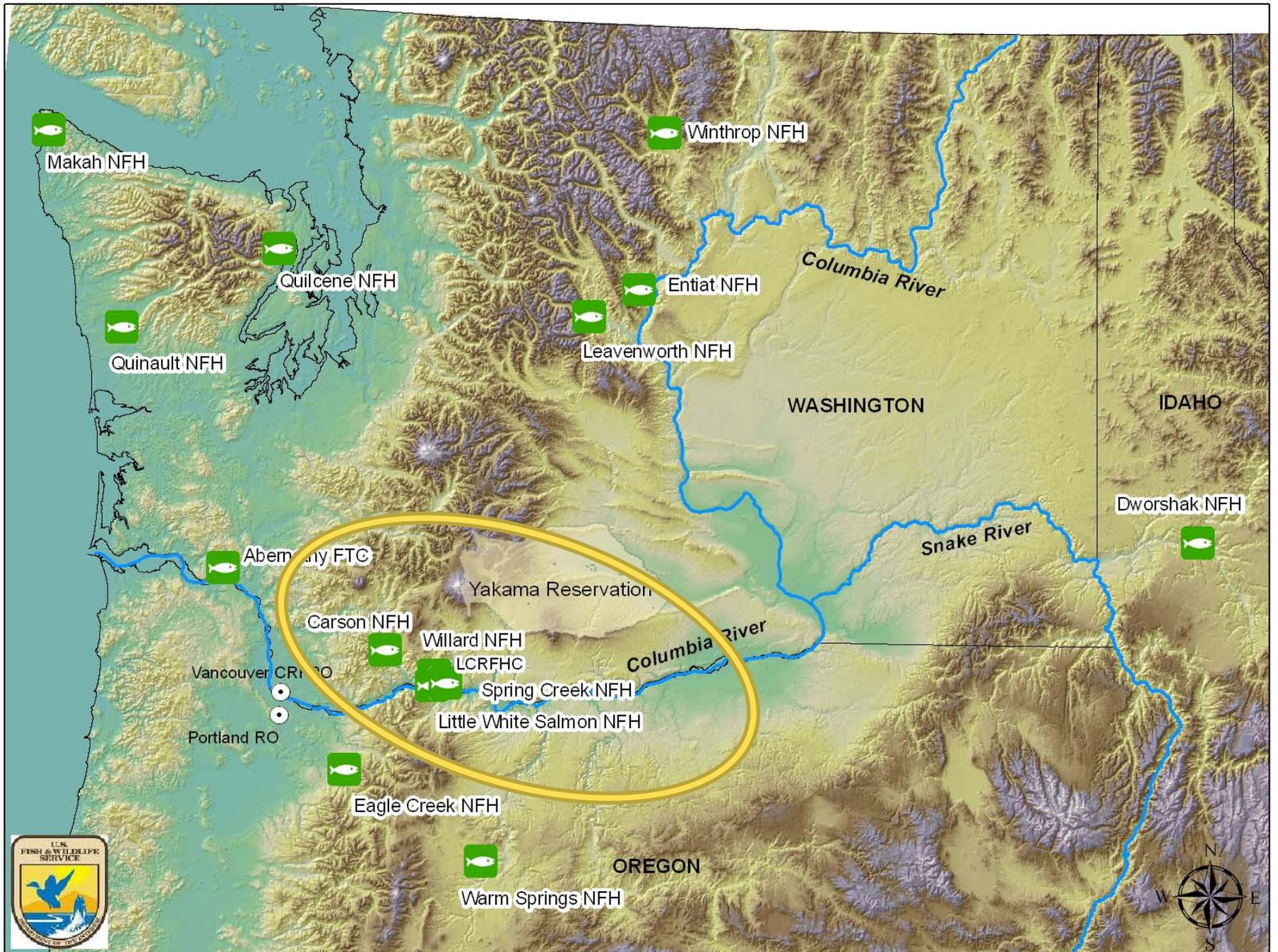


**Sport fishing Drano Lake**

# Hatcheries Benefits



**Coastal Fisheries – Trollers/Seiners**



## Hatchery Facilities – Gorge Area

- Spring Creek
- Little White Salmon / Willard Complex
- Carson



# Spring Creek

- Species FCS** - 12.2 (1.7M release at LWS)
- 10.5 M is split in 2 releases  
(April = 6.0M May = 4.5M)
  - 3.0M eyed-eggs to Bonneville

**Adult Escapement Goal >>** 10,000 to the Hatchery  
to achieve up to 20M egg-take goal

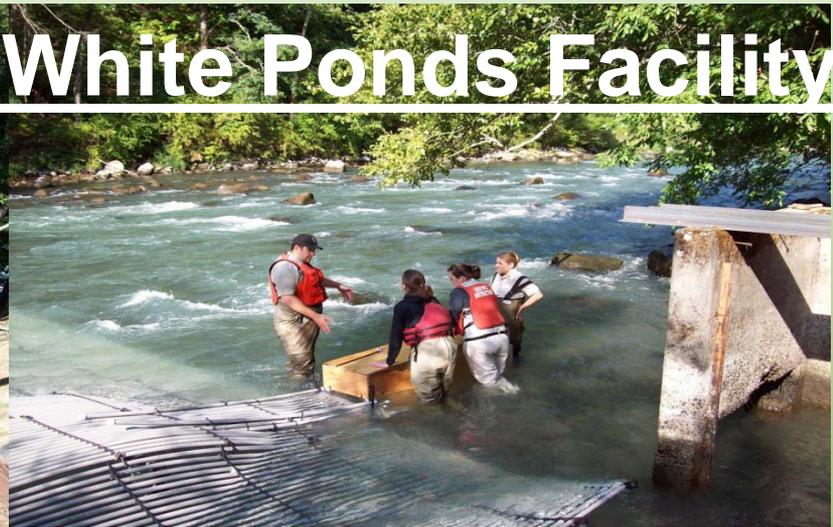
**Big White Salmon Ponds >>** Weir and Acclimation  
Functions. (Rod & Joe next)

**Reprogramming Implemented as an HSRG/HRT  
recommendation (later)**

# Spring Creek



# Spring Creek – Big White Ponds Facility



# Little White Salmon

- SCS** - 1 M Little White Salmon River  
Drano Lake direct release
- SCS** - 150,000 White River Stock to White R.
- URB** - 4.5M Little White Salmon River  
Drano Lake direct release
- URB** - 1.7M for release on Yakama Indian  
Reservation/John Day Mitigation
- URB** - 4.5M Eggs for Transfer  
to YIN-Klickitat Hatchery
- FCS** - 1.7M from Spring Creek for Little White Salmon River  
Drano Lake direct release



# Little White Salmon



Little White Salmon National Fish Hatchery

FWS Image: S. Doulos



# Little White Salmon



**Fall Chinook eggs transferred to the Yakama  
Nation Klickitat Hatchery in egg tubes**

# Willard

**Willard - part of complex Little White Salmon/Willard NFH Complex**

**Production - 60% Funded by YIN 40% Mitchell Act**

**SCS** - 400,000 *Little White Salmon River  
Drano Lake direct release*

**COS** - 650,000 *Wenatchee River Basin release*

## Captive Brood Stock

**3 year classes of Endangered White River  
captive broodstock for spawning, 2<sup>nd</sup>  
generation juvenile production**

# Willard



# Willard



Coho at Willard NFH in preparation for loading and transport to acclimation sites within the Wenatchee River Basin

# Willard



# Carson

- SCS** - 1.14M Wind River release
- 250,000 for Confederated Tribes of Umatilla (Walla Walla Drainage)
  - 50,000 for Confederated Tribes of Warm Springs (Hood River Drainage)



**Adult Escapement Goal >> 1,200 to the Hatchery**

# Carson



# Carson



**Accessible Fishing Day**

# Carson



# Hatchery Reform

## Ongoing since the early 80's

- Lower Production levels – less is more
- Reduced Densities – also less is more
- Fish Health Monitoring
- Improved Fish Diets
- Natures Rearing Experiments
  - Carson one of 1st
- Hatchery Evaluation Teams
- Quality vs. Quantity is Emphasized

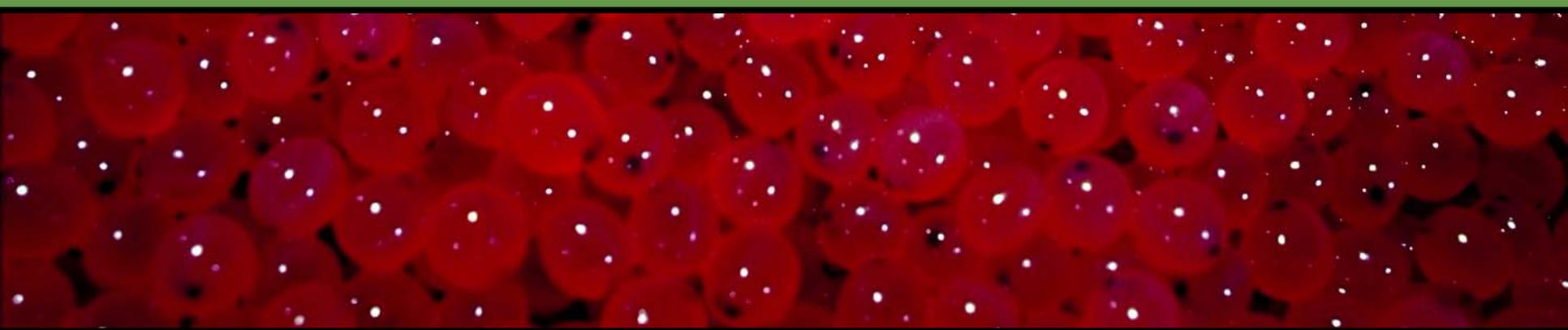


# Pacific Region Federal Hatchery Review

## Hatchery Review Team (HRT)

– 4 years and counting ....!

- Review 24 Salmon and Steelhead hatcheries (includes Lower Snake Comp Plan WDFW-IDFG-ODFW operated facilities)
- parallel to / modeled after WDFW Puget Sound and Coastal Hatchery Reform Project – **Hatchery Scientific Review Group (HSRG)**



# Hatchery Reform



Still ongoing in 2010

**Hatchery Review Team (HRT) intent**

- **Benefit / Risk Assessments**
  - **Scientifically Defensible Programs**
  - **Recommend risk reductions and/or improve benefits**
- **Appropriate Stocks – Ecologically within Context**
- **Increased Adaptability – Collaborative Management**

# Spring Creek - Hatchery Reform

- reprogramming recommendations incorporated, was a long process finally facilitated by comprehensive review recommendations (HSRG & HRT)
- 100% marking (all other hatchery fish as well)
  - huge challenge to implement
- other changes, improvements, innovations
- study collaborations on Bonneville Dam op's
  - Corner Collector 2004/05
  - Turbine Operations 2008/09



(significant changes to benefit fish migrating Columbia R.)

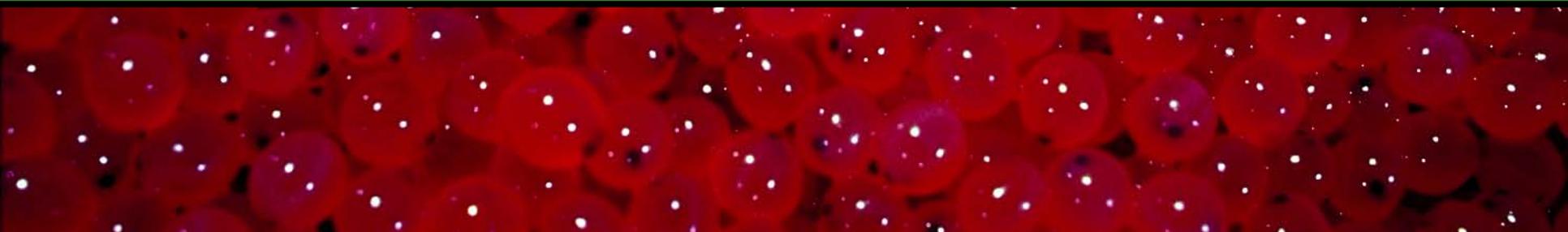
# LWS/Willard - Hatchery Reform

## LWS

- Transition from Mitigation to ESA Restoration
- Densities reductions = no more medicated feed
- Bacterial Kidney Disease elimination

## Willard

- phased out non-endemic spp. releases
- rearing for restoration White River ESA – SCS
- trial rearing for Bull Trout restoration



# Carson - Hatchery Reform

- One of the 1<sup>st</sup> on Natures Rearing Trials & alternate pond colors
- Densities reductions = no more medicated feed
- Bacterial Kidney Disease elimination
- 100% marking



# Management - Partners & Coordination

## Internal

Vanc. FPO – Lower Columbia R. Fish Health Ctr.  
Abernathy Fish Tech Ctr.

## Other Gov't & non-Gov't

YIN – ACOE – NMFS

USGS – WDFW – ODFW

UCD – WSRWMC



# Management - Operational Guidance

- **Comprehensive Hatchery Management Plan (CHMP)**
- **Hatchery Genetic Management Plan (HGMP)**
- **Standard Operating Procedures (SOP) – by station**



# Acknowledgements



Special thanks to Bill Sharp & YIN for the request.  
David Hines – Vancouver Fisheries/GIS for help on the Hatchery Maps.

# Thank You – Questions?



<http://www.fws.gov>

<http://www.fws.gov/pacific/Fisheries/>

<http://www.fws.gov/pacific/Fisheries/facilities.cfm>

<http://www.fws.gov/pacific/Fisheries/Hatcheryreview/index.html>